



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R07-OAR-2017-0251; FRL-9963-75-Region 7]

**Approval of Missouri Air Quality Implementation Plans;
Determination of Attainment for the 2010 1-hour Primary Sulfur
Dioxide National Ambient Air Quality Standard; Jefferson County
Nonattainment Area**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to determine that the Jefferson County nonattainment area, in Missouri, has attained the 2010 1-hour primary Sulfur Dioxide (SO₂) National Ambient Air Quality Standard (NAAQS) per the EPA's Clean Data Policy. This proposed determination of attainment is based upon complete, quality assured, and certified ambient air monitoring data from the 2014-2016 monitoring period, associated dispersion modeling, and supplemental emissions inventory information, which demonstrate that the Jefferson County area attained the 2010 1-hour primary SO₂ NAAQS.

DATES: Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R07-OAR-2017-0251, to <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION, CONTACT: Ms. Tracey Casburn, Environmental Protection Agency, Air Planning and Development Branch, 11201 Renner Boulevard, Lenexa, Kansas 66219 at (913) 551-7016, or by email at casburn.tracey@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document “we,” “us,” and “our” refer to the EPA. This section provides additional information by addressing the following:

- I. What Action is the EPA Proposing?
- II. What is the Background of This Action?
 - a. Nonattainment Designation
 - b. Clean Data Policy
 - c. How does a Nonattainment Area Achieve “Clean Data” for the 2010 1-hour primary SO₂ NAAQS?
 - d. What Information Did the State Provide to the EPA to Demonstrate That the Area Has Attained the NAAQS?
 - e. What is the EPA’s Rationale for Proposing This Action?
- III. What is the EPA’s Analysis of the State’s Air Quality Monitoring and Modeling Data, and the State’s Supplemental Emissions Inventory Information?
 - a. Ambient Air Quality Monitoring Data Evaluation
 - b. Modeling Data and Supplemental 2016 Emissions Information Evaluation
- IV. What Would Be the Effects of This Action, if Promulgated?
- V. Statutory and Executive Order Reviews

I. What Action is the EPA Proposing?

The EPA is proposing to determine that the Jefferson County 2010 1-hour primary SO₂ nonattainment area (hereby referred to as “the nonattainment area”), in Missouri, has attained the 2010 1-hour primary SO₂ NAAQS.¹ This proposed determination of attainment is based on a February 2016 request from the state (as later supplemented) that the EPA consider information – including complete, quality assured, and certified ambient air monitoring data from the 2013–2015 monitoring period, with

¹ In accordance with Appendix T to 40 CFR Part 50, the 1-hour primary SO₂ NAAQS is met at an ambient air quality monitoring site when the valid 1-hour primary standard design value is less than or equal to 75 parts per billion (ppb). 40 CFR 50.17(b).

additional certified monitoring data from 2016, associated dispersion modeling for the 2013-2015 emission years, as well as supplemental 2016 emissions inventory information - which show that the nonattainment area has attained the 2010 1-hour primary SO₂ NAAQS.^{2,3}

The EPA has made the monitoring data, the modeling data, the supplemental emissions inventory information and additional information submitted by the state to support this proposed action available in the docket to this rulemaking through www.regulations.gov and/or at the EPA Region 7 Office (please contact the person identified in the "For Further Information Contact" section of this preamble for more information).

II. What is the Background of This Action?

a. Nonattainment Designation

On June 2, 2010 (75 FR 35520), the EPA established a health-based 1-hour primary SO₂ NAAQS at 75 ppb. Upon promulgation of a new or revised NAAQS, section 107(d) of the Clean Air Act (CAA) requires the EPA to designate any area that

² In accordance with Appendix T to 40 CFR Part 50, a 1-hour primary SO₂ NAAQS design value is valid if it encompasses three consecutive calendar years of complete data. A year meets data completeness requirements when all 4 quarters are complete. A quarter is complete when at least 75 percent of the sampling days for each quarter have complete data. A sampling day has complete data if 75 percent of the hourly concentration values, including state-flagged data affected by exceptional events which have been approved for exclusion by the Administrator, are reported.

³ Monitoring data must be reported, quality assured, and certified in accordance with the requirements set forth in 40 CFR part 58.

does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the NAAQS as nonattainment. On August 5, 2013, the EPA designated a portion of Jefferson County, Missouri, as nonattainment for the 2010 1-hour primary SO₂ NAAQS, effective October 4, 2013.⁴ The designation was based on 2008-2010 monitoring data in Herculaneum, Missouri, which monitored violations of the standard (see section III of this document for additional monitoring information). The effective date of the nonattainment designation was October 4, 2013. This action established an attainment date five years after the effective date for the areas designated as nonattainment for the 2010 SO₂ NAAQS (i.e., by October 4, 2018). The state was also required to submit a State Implementation Plan (SIP) for the nonattainment area to the EPA that meets the requirements of CAA sections 110, 172(c) and 191-192 within 18 months following the October 4, 2013, effective date of designation (i.e., by April 4, 2015). The State of Missouri submitted the "Nonattainment Area Plan for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard Jefferson County Sulfur Dioxide Nonattainment Area" on June 5, 2015.

b. Clean Data Policy

⁴ 78 FR 47191 (August 5, 2013), codified at 40 CFR 81.326.

Where states request a clean data determination of a designated SO₂ NAAQS nonattainment area, the EPA will determine whether or not an area has attained the NAAQS based on air quality monitoring data (when available) and air quality dispersion modeling information for the affected area as necessary. The EPA issued "Clean Data" policy memoranda for SO₂ and other NAAQS describing reduced attainment planning requirements for nonattainment areas that attain the NAAQS, but have not yet been redesignated as attainment.^{5,6} Additionally, the EPA has issued national rulemakings that have codified this policy for ozone and fine particulate matter (PM_{2.5}) NAAQS.⁷ Under the Clean Data policy, the EPA interprets the requirements of the CAA that are specifically designed to help an area achieve attainment, such as attainment demonstrations and implementation of reasonably available control measures (including reasonably available control technology), reasonable further progress (RFP) demonstrations, and contingency measures,

⁵ Memorandum of December 14, 2004, from Steve Page, Director, EPA Office of Air Quality Planning and Standards to the EPA Air Division Directors, "Clean Data Policy for the Fine Particle National Ambient Air Quality Standards." This document is available at: <http://www.epa.gov/pmdesignations/guidance.htm>.

⁶ The memorandum of April 23, 2014, from Steve Page, Director, EPA Office of Air Quality Planning and Standards to the EPA Air Division Directors "Guidance for 1-hr SO₂ Nonattainment Area SIP Submissions" provides guidance for the application of the clean data policy to the 2010 1-hour primary SO₂ NAAQS. This document is available at https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf.

⁷ See, e.g., 81 FR 58010, 81 FR 58127-58129 (August 24, 2016) (promulgating 40 CFR 51.1015); 80 FR 12264, 80 FR 12296 (promulgating 51.1118). See also 70 FR 71612, 70 FR 71664-46 (November 29, 2005); 72 FR 20585, 72 FR 20603-20605 (April 25, 2007).

to be suspended as long as air quality continues to meet the standard.

In the memorandum of April 23, 2014, from Steve Page, Director, EPA Office of Air Quality Planning and Standards to the EPA Air Division Directors "Guidance for 1-hr SO₂ Nonattainment Area SIP Submissions" (2014 SO₂ Nonattainment Area Guidance), the EPA explained its intention to extend the Clean Data Policy to 1-hour SO₂ nonattainment areas that attained the standard. As noted therein, the legal bases set forth in the various guidance documents and regulations establishing the Clean Data Policy for other pollutants are equally pertinent to all NAAQS.⁸ This proposed rule is also consistent with prior actions of the EPA applying the Clean Data Policy to two other nonattainment areas under the 2010 SO₂ NAAQS.⁹

Clean data determinations are not redesignations to attainment. For the EPA to redesignate an area to attainment, a state must submit and receive full approval of a redesignation request that satisfies all of the statutory criteria for redesignation to attainment, including a demonstration that the improvement in the area's air quality is due to permanent and

⁸ See court cases upholding legal basis for the EPA's Clean Data Determination Policy, *NRDC v. EPA*, 571 F.3d at 1258-61 (D.C. Cir. 2009); *Sierra Club v. EPA*, 99 F.3d 1551 (10th Cir. 1996); *Latino Issues Forum v. EPA*, 315 Fed. App. 651, 652 (9th Cir. 2009).

⁹ 82 FR 13227 (March 10, 2016) and 81 FR 28718 (May 10, 2016).

enforceable reductions; have a fully approved SIP that meets all of the applicable requirements under CAA section 110 and CAA part D; and have a fully approved maintenance plan.

c. How does a Nonattainment Area Achieve "Clean Data" for the 2010 1-hour primary SO₂ NAAQS?

Generally, the EPA relies on ambient air quality monitoring data alone in order to make determinations of attainment for areas designated nonattainment for a particular NAAQS. However, given the Agency's historical approach toward SO₂, the source-specific nature of SO₂ emissions, and the localized effect of those emissions, in the preamble to the 2010 1-hour primary SO₂ NAAQS rulemaking, the EPA stated that it did not expect to rely solely on monitored air quality data in all areas when determining if an area has attained the 2010 1-hour primary SO₂ NAAQS (75 FR 35551). As the EPA noted in the preamble, in order for the EPA to determine that an area is attaining the 2010 1-hour primary SO₂ NAAQS, dispersion modeling may be needed to show no violating receptors even if a monitoring site showed no violations.¹⁰ This was because, as the EPA explained in the

¹⁰ As noted in the preamble to the 2010 1-hour primary SO₂ NAAQS (75 FR 35551), this has been the EPA's general position throughout the history of implementation of the SO₂ NAAQS program. *See, e.g.*, "Air Quality Control Regions, Criteria, and Control techniques; Attainment Status Designations," 43 FR 40412, 43 FR 40415 - 43 FR 40416 (September 11, 1978); "Air Quality Control Regions, Criteria, and Control Techniques," 43 FR 45993, 43 FR 46000 - 43 FR 46002 (October 5, 1978); "Air Quality Implementation Plans: State Implementation Plans; General Preamble," 57 FR 13498, 57 FR 13545, 57 FR 13547 - 57 FR 13557, 57 FR

preamble, the Agency did not expect that most existing SO₂ monitors were well sited to record maximum 1-hour ambient SO₂ concentrations under the new NAAQS. The 2014 SO₂ Nonattainment Area Guidance states that, in order for a nonattainment area that was designated based on air quality monitoring data to be determined as attaining the NAAQS, the state would need to meet a series of criteria. First, the state would need to demonstrate that the area is meeting the standard based on three consecutive calendar years of air quality monitoring that is complete and quality-assured (consistent with 40 CFR part 58 requirements). Second, the state would need to either (1) provide modeling of the most recent three years of actual emissions for the area or (2) provide a demonstration that the affected monitor(s) is or are located in the area of maximum concentration. As explained in more detail later in this section, the EPA believes that it is permissible to substitute current source-specific allowable emissions for actual emissions for the purpose of demonstrating (1) in this paragraph.

If a demonstration shows that the monitor(s) is or are

13548 (April 16, 1992); "Approval and Promulgation of State Implementation Plans; Call for Sulfur Dioxide SIP Revisions for Billings/Laurel, MT," 58 FR 41430 (August 4, 1993); "Designation of Areas for Air Quality Planning Purposes; Ohio," 59 FR 12886, 59 FR 12887 (March 18, 1994); "Ambient Air Quality Standards, National and Implementation Plans for Sulfur Oxides (Sulfur Dioxide)," 60 FR 12492, 60 FR 12494 - 60 FR 12495 (March 7, 1995); "Air Quality Implementation Plans; Approval and Promulgation: Various States: Montana," 67 FR 22167, 67 FR 22170 - 67 FR 22171, 67 FR 22183 - 67 FR 22887 (May 2, 2002).

located in the area of maximum concentration, the EPA believes that it may be appropriate to determine that the nonattainment area is attaining the standard based on monitoring data alone. The state did not submit a demonstration that the monitor was located in the area of maximum concentration, therefore its submittal needed to provide a modeling demonstration in support of a clean data determination.

The 2014 SO₂ Nonattainment Area Guidance states that, when air agencies provide monitoring and/or modeling to support clean data determinations, the monitoring data provided by the state should follow the EPA's "SO₂ NAAQS Designations Source-Oriented Monitoring Technical Assistance Document" (SO₂ monitoring TAD) and the modeling provided by the state should follow the EPA's "SO₂ NAAQS Designations Modeling Technical Assistance Document" (SO₂ Modeling TAD).^{11,12} The SO₂ Modeling TAD outlines modeling approaches for future SO₂ NAAQS attainment status designations and states that, for the purposes of modeling to characterize air quality for use in SO₂ designations, the EPA recommends using a minimum of the most recent three years of actual emissions

¹¹The SO₂ NAAQS Designations Source-Oriented Monitoring Draft Technical Assistance Document, Office of Air Quality Planning and Standards, Air Quality Assessment Division, May 2013, can be found at <https://www.epa.gov/sites/production/files/2016-06/documents/so2monitoringtad.pdf>

¹²The SO₂ NAAQS Designations Modeling Technical Assistance Document, Office of Air Quality Planning and Standards, Air Quality Assessment Division, May 2013, can be found at <https://www.epa.gov/sites/production/files/2016-06/documents/so2modelingtad.pdf>

data and concurrent meteorological data to allow the modeling to simulate what a monitor would observe. Additionally, the SO₂ Modeling TAD indicates that it is acceptable to use allowable emission rates instead of actual emission rates. Although past actual emissions could have been higher than those under the most recent allowable rate, the SO₂ Modeling TAD reflects the EPA's belief that it is reasonable to account for any lower allowable limits currently in place when determining if an area is attaining the NAAQS. In addition, the SO₂ Modeling TAD indicates that, where an allowable emissions limit has been lowered during the relevant three-year period (such as through the implementation of emissions controls), the air agency may rely on the new limit in demonstrating that the modeled limit assures attainment. In this fashion, the most recent permitted or potential to emit rate should be used along with a minimum of the most recent three years of meteorological data.¹³

The EPA believes that modeling a mix of current allowable emissions and actual emissions would be permissible in such an analysis as long as the same type of emissions are used for each source for all three years. For instance, if a state decided to use current allowables for a facility in a modeling analysis,

¹³ See page 10 of the SO₂ Modeling TAD.

the state would need to use current allowables for all three years of the analysis for that facility. The state would not necessarily need to use current allowables for the other sources in the analysis (i.e., actuals would be permissible for all three years for other sources in the area). The EPA believes this kind of analysis is appropriate for both designations and clean data determinations, both of which use the analysis to determine whether the area is currently meeting the NAAQS.

The EPA recognizes that its 2014 SO₂ Nonattainment Area Guidance does not on its face suggest that modeling allowable emissions would be an acceptable alternative to modeling actual emissions in the clean data determination or redesignations contexts. However, the Agency considers it to have been an oversight on its part not to have addressed this alternative possibility in the 2014 SO₂ Nonattainment Area Guidance, as the Agency clearly has endorsed the use of both actual emissions and allowable emissions in the SO₂ Modeling TAD in general and in the recent rounds of area designations under the SO₂ NAAQS, in contexts where, as here, the Agency is making a factual judgment about whether an area has attained the NAAQS. Moreover, the 2014 guidance also suggests that modeling of allowables emissions, combined with other information, could also be used to determine

whether, after the attainment deadline has passed, areas in fact timely attained the NAAQS under CAA section 179. Therefore, although the SO₂ Nonattainment Area Guidance was silent on using allowable emissions in the clean data determination and redesignations contexts, the EPA believes it is not inconsistent with the guidance to endorse that practice now, provided the allowables-based modeling is conducted appropriately pursuant to the SO₂ Modeling TAD and applicable EPA regulations such as those governing stack heights and dispersion techniques at 40 CFR 51.100 and 40 CFR 51.118.

d. What Information Did the State Provide to the EPA to Demonstrate that the Area Attained the NAAQS?

On February 2, 2016, the state submitted a request asking the EPA to determine that the nonattainment area attained the 2010 1-hour primary SO₂ NAAQS per the EPA's Clean Data Policy. The request included the most recent three years of complete, quality assured, and certified ambient air monitoring data from the 2013-2015 monitoring period; the design value for 2013-2015 was 66.0 ppb. In a response letter, dated March 4, 2016, the EPA stated that, because the request did not include a modeling demonstration showing attainment utilizing the most recent three years of actual emissions or a demonstration that the monitor

was located in the area of maximum concentration for the nonattainment area, the state's request did not contain the necessary supporting information as outlined in the EPA's 2014 SO₂ Nonattainment Area Guidance. In a letter dated August 4, 2016, the state provided modeling of the most recent three years of actual emissions (2013-2015) for the nonattainment area. However, in the provided modeling, the Doe Run Herculanum facility was zeroed out despite the fact that the facility was still operating in 2013.¹⁴ On November 9, 2016, the EPA asked the state (via email) to provide additional information regarding the exclusion of emissions from the Doe Run Herculanum facility for the 2013-2015 emission years from the modeling demonstration as well as additional information regarding its selection of the 2014 emissions data year as a surrogate for the interactive sources' emissions.¹⁵ The state submitted supporting information to the EPA on November 21, 2016. In its November 2016 submittal the state spoke to the complexity of modeling fugitive emissions from the Doe Run Herculanum facility and the appropriateness of

¹⁴ The Doe Run Herculanum (Herculanum) facility was a lead smelting facility identified by the state and the EPA as the largest source of SO₂ emissions in Jefferson County at the time of the promulgation of nonattainment designations in 2013. The facility ceased operations in December 2013. Although the source operated in 2013, emitting 11,477 tons of SO₂, the state zeroed out its emissions in each of the 2013-2015 emission years in the modeling information.

¹⁵ The state modeled all interactive sources utilizing the sources' 2014 emission limits (essentially modeling the 2014 emissions input three times). The EPA requested that the state confirm that utilizing 2014 as a surrogate for 2013 and 2015 was appropriate.

utilizing 2014 emissions as a surrogate for the interactive sources. On February 22, 2017, the state provided additional supplemental information that consisted of available 2016 emissions inventory information. On May 1, 2017, the EPA received email notification from the state that its 2016 ambient air quality data was certified as complete and continues to show attainment of the standard; the design value for 2014-2016 is 23.0 ppb. These communications are available in the docket for this action.

e. What is the EPA's Rationale for Proposing This Action?

The EPA is proposing to issue a determination of attainment for the nonattainment area based on the area's 2013-2015 modeling demonstration, which is supported by monitoring data from the Mott Street monitor. The 2014 SO₂ Nonattainment Area Guidance and the accompanying 2016 SO₂ Modeling TAD allow for nonattainment areas to model a mix of actual emissions and current allowable emissions, and as noted previously, we interpret that document to also allow this approach for a clean data determination.

The state modeled actual emissions for all sources except for the Doe Run Herculaneum facility, which was modeled at zero

emissions, since the facility shut down in December 2013.¹⁶ This treatment of the Doe Run Herculaneum facility is appropriate because the demonstration includes emissions for Doe Run Herculaneum using the most recent allowable emissions rate, which has been permanently and enforceably lowered during the relevant period. The maximum modeled impact from the model scenario is 172.8 µg/m³, or 66 ppb, which complies with the 1-hour standard of 75 ppb. The model results satisfy the criteria for determinations of attainment according to the EPA's guidance and policy.

III. What is the EPA's Analysis of the State's Air Quality Monitoring and Modeling Data, and the State's Supplemental Emissions Inventory Information?

a. Ambient Air Quality Monitoring Data Evaluation

According to the 2014 SO₂ Nonattainment Area Guidance, to support a clean data determination based on monitoring, the state needs to demonstrate that the area is meeting the standard based on three consecutive calendar years of complete and

¹⁶ The Doe Run was limited to the terms of a consent decree applicable to the Herculaneum facility entered into by Doe Run, Missouri, and EPA in the United States District Court in the Eastern District of Missouri, Case No. 4:10-cv-01895-JCH on December 21, 2011 (2011 Consent Decree). On December 31, 2013, pursuant to the terms of the 2011 Consent Decree, Doe Run permanently ceased operations of the sintering plant. The 2011 Consent Decree also required Doe Run to permanently cease smelting operations and retire the blast furnaces by April 30, 2014; Doe Run ceased operation of the blast furnaces on December 31, 2013, concurrently with the cessation of operation of the sintering plant.

quality-assured air quality monitoring data (consistent with 40 CFR part 58 requirements). The EPA has determined that three complete consecutive calendar years of quality-assured air quality monitoring data from the Mott Street monitor have been recorded in the EPA's Air Quality System (AQS), and the data meets the requirements of Appendix T to 40 CFR part 50 and 40 CFR part 58. This data suggests improved air quality in the nonattainment area. As shown in Table 1, the 99th percentile 1-hour average (in ppb) at the Mott Street Monitor has decreased after 2013, when the Doe Run Herculaneum facility ceased primary smelting operations. As shown in Table 2, during the 2014-2016 monitoring period, the nonattainment area met the 2010 1-hour primary SO₂ NAAQS. The certified annual design value for the nonattainment area for the 2014-2016 monitoring period is 23.0 ppb. Although clean data at a monitor sited in the area of maximum concentration could be sufficient for purposes of a clean data determination under the EPA's guidance, the state did not submit a demonstration showing that the Mott Street monitor is located in the area of maximum concentration. Thus, the monitoring data on its own is not sufficient to support a clean data determination in this case, and, as such, the state submitted modeling to support the clean data determination.

Table 1: 99th Percentile 1-hour Average in Parts Per Billion (ppb) at the Mott Street Monitor (2013-2016)

Monitor	Site Name	2013	2014	2015	2016
29-099-0027	Mott Street	143	18	38	13

Table 2: 1-hour primary SO₂ NAAQS Design Value(dv) for the Mott Street Monitor (2014-2016)

State	County	Monitor	Site name	dv
MO	Jefferson	29-099-0027	Mott Street	23.0

b. Modeling Data and Supplemental 2016 Emissions Information Evaluation

As noted earlier, the 2014 SO₂ Nonattainment Area Guidance states that, in order for the EPA to make a clean data determination, the state may need to submit information in addition to monitoring data if the area was designated nonattainment based on air quality monitoring data. In August 2016, the state submitted modeling data for the most recent three years (2013-2015).¹⁷ In February 2017, the state submitted supplemental preliminary 2016 emissions data in support of assumptions made in the 2013-2015 modeling demonstration.¹⁸ The EPA reviewed the submitted modeling data and supporting 2016 preliminary emissions data information for the nonattainment area to determine consistency with the EPA's Clean Data Policy,

¹⁷ The state's submittal included 2013-2015 emissions data as it was the complete and quality assured data set at the time of the submittal. The submittal includes a table of the sources included in the model and the emission rates used in the model. This information is provided in the docket.

¹⁸ 2016 emissions data submitted by the state in February 2017 included only data quality assured as of September 2016.

the 2014 SO₂ Nonattainment Area Guidance and the 2016 SO₂ Modeling TAD.

The EPA reviewed the August 2016 submittal to determine if the appropriate meteorological inputs were utilized. The state determined that the 2013-2015 meteorological data collected at the Doe Run Herculanum meteorological sites were inappropriate for use in the model analysis as the data were disjointed. The data were disjointed due to a 2013 Consent Judgment between the state and Doe Run that allowed Doe Run Herculanum to cease meteorological measurements at certain towers and to move the remaining tower to allow for site remediation. The state elected to use the most recent full three-year period (2013-2015) of data as measured at a spatially representative NWS airport site. The state utilized the St. Louis, Missouri downtown airport (Cahokia) for surface data and the Lincoln, Illinois site for upper air data. The meteorological data from the time period of 2013-2015 was processed and paired with the emissions data as discussed later in this preamble. The EPA believes that the utilization of meteorological data from these sites was appropriate.¹⁹

¹⁹ See the state's August 2016 modeling demonstration, provided in the docket to this action, for model selection information (i.e., receptor grid selection).

The EPA finds that the state sufficiently considered all significant sources of SO₂ emissions for inclusion in the modeling demonstration, including permitted sources of SO₂ emissions inside of the nonattainment area boundary, nearby sources (located within 20 kilometers (km) of the nonattainment area boundary and emitting greater than 1 ton per year (tpy) of SO₂) outside the nonattainment area boundary, and large sources (sources that emit greater than 2,000 tpy of SO₂) located within 50 km of the nonattainment boundary. The EPA finds the modeled source inventory was created in accordance with the 2014 SO₂ Nonattainment Area Guidance and the 2016 SO₂ Modeling TAD.

To characterize the emissions from the sources in the modeling inventory, the state used hourly varying emissions, as reported to the EPA's Clean Air Markets Division (CAMD) program database, for three of the fifteen sources, and the 2014 actual emissions, as reported in the Missouri Emission Inventory System (MoEIS), for the remaining twelve sources. For the remaining twelve sources, the state converted the annual emissions to hourly emission rates utilizing operational hours reported by the facilities (as hourly emissions were not available for these twelve sources). The state's November 2016 supplemental information indicated that the state evaluated actual emissions

for each year in the three-year period (2013-2015) separately. As can be expected, there were variations in hourly emissions during the modeled time period (2013-2015); emissions from either 2013 or 2015 were slightly higher than the 2014 emissions for six of the twelve sources. As such, in the November 2016 supplemental information, the state revised the modeling to reflect the highest hourly emissions (either reported to CAMD or converted to hourly emission rates by the State) for each interactive source during the three-year period. The variation in emissions resulted in only a 0.02 percent increase on the model-predicted concentrations; the highest modeled impact increased from 172.82 $\mu\text{g}/\text{m}^3$ to 172.85 $\mu\text{g}/\text{m}^3$. Considering the variation resulted in only a 0.02 percent increase on the predicted modeling concentrations, the EPA agrees with the state's assertion that the use of hourly emission data (either reported to CAMD or converted to hourly emission rates by the State) from 2014 for the interactive sources was a reasonable representation of the time period.

The state did not include emissions from Doe Run Herculaneum in the modeling demonstration for any of the 2013-2015 emission years. The state modeled the facility at zero emissions from 2013-2015 even though the facility's primary

smelting operation was active during 2013.²⁰ The EPA believes that this modeling analysis supports the rationale outlined in section II.e. for proposing the clean data determination. The EPA believes that modeling the Doe Run Herculanum facility at zero emissions is in accordance with the 2016 SO₂ Modeling TAD as it is representative of current allowable emissions at the source. Because the EPA is interpreting that the 2016 SO₂ Modeling TAD's provision for modeling a mix of current allowables and actuals for area designations is also appropriate for purposes of a clean data determination, the EPA finds that the emissions from all modeled sources were characterized appropriately in the model.

As previously described, the state submitted additional information to the EPA in February 2017. In this submittal, the state acknowledged that that emissions data for the 4th quarter of 2016 was not yet available nor quality assured for modeling purposes. Most of the modeled source inventory data will not be available until at least mid-2017. However, the state compared "data elements of 2016" to 2013 to determine whether the 2013 data could serve as a surrogate for 2016 data.²¹ The state asserted that, because the August 2016 modeling demonstration

²⁰ Herculanum emitted an estimated 11,477 tons of SO₂ in 2013 prior to it ceasing operations in December of 2013.

²¹ Key data elements included meteorological data, available emission data and monitoring data.

used actual emissions for the period 2013-2015 for all sources except Doe Run Herculaneum, a modeling demonstration for the period 2014-2016 would likely yield similar results because Doe Run Herculaneum was not operational in any of those three years.

The supplemental information submitted by the state included an examination of variations in meteorology and in modeled source inventory emissions. This included a qualitative climatological comparison between the years 2013 and 2016 for the St. Louis, Missouri downtown airport location and highlighted the similarities and differences observed in those years. The state asserted that the meteorological information indicates that the differences in meteorological conditions from 2013 to 2016 are insignificant.

The state also provided 2016 emissions information, as reported to CAMD, for the three EGUs (Ameren's Labadie, Meramec and Rush Island facilities) and compared them to the modeled 2013 emissions data. Partial data for 2016 (through September 30, 2016) emissions data was provided in CAMD; the state compared available 2016 emissions data (January 1, 2016 - September 30, 2016) to 2013 emissions data for these three

sources.^{22,23} For 2016, the three reported quarters were extrapolated to a full year for an annual comparison.²⁴ This extrapolation assumed a continuation of comparable emission levels. The extrapolated 2016 data indicated that the Labadie facility's SO₂ emissions decreased 21 percent, the Meramec facility's SO₂ emissions decreased 23 percent and the Rush Island facility's SO₂ emissions decreased 3 percent from 2013 annual emission rates. The state also asserted that updating the modeling data to include 2014-2016 emissions and meteorological information would not change the outcome of the previously submitted modeling information (which utilized 2013-2015 data) that modeled attainment of the NAAQS. Essentially, the state claimed, the maximum modeled impact from the model scenario (172.8 µg/m³ or 66 ppb in the northwest portion of the nonattainment area) utilizing 2013-2015 emission data without Doe Run Herculanum emissions, is indicative of 2014-2016 air quality without contributions from the Doe Run Herculanum facility and demonstrates that the nonattainment area has attained the standard of 75 ppb.

²² Ameren's Labadie and Meramec facilities are not in the nonattainment area but are within 50 km of the nonattainment area and emit greater than 2,000 tpy of SO₂. Therefore, they were included in the state's modeling demonstration and subsequent supplemental information.

²³ All emissions data used in the analysis are available through the EPA's CAMD database online. <https://www.epa.gov/airmarkets/clean-air-markets-data-resources>.

²⁴ The first three quarters of 2016 were extrapolated to a full year for annual comparison by multiplying by 75 percent (x/0.75).

While the state's analysis of available 2016 emissions and meteorology data is informative, the EPA interprets that the 2014 SO₂ Nonattainment Area Guidance and the 2016 SO₂ Modeling TAD allows for modeling of a mix of actual emissions and current allowable emissions to support a clean data determination, and therefore the state's 2013-2015 modeling demonstration is sufficient to allow an assessment as to whether the area has achieved clean data.

The EPA acknowledges the Doe Run Herculanum facility's primary smelting operation is permanently shut down and recognizes the corresponding relationship between the decrease in the emissions from Doe Run Herculanum and the decreased monitored concentrations at the Mott Street monitor as seen in table 3. The maximum hourly SO₂ concentration was reduced by 87 percent from 2013 (143 ppb) to 2014 (18 ppb) after the Doe Run Herculanum facility closed. A comparison of the 99th percentile 1-hr average from the last full production year (2012) to the first post-shutdown year (2014) shows a 93 percent reduction in monitored SO₂ concentrations.

Table 3: Decrease in Doe Run Herculanum SO₂ Emissions vs. the Decrease in Monitored 99th percentile 1-hour averages (2012-2015)

Year	99th Percentile 1-hour Average (ppb)	Herculanum SO ₂ Emissions (tpy)
2012	268	17,894
2013	143	11,477

2014	18	< 1
2015	38	< 1

The maximum modeled impact from the 2013-2015 model scenario is 172.8 $\mu\text{g}/\text{m}^3$ or 66 ppb which complies with the 1-hour standard of 75 ppb. The model results, along with monitored attainment of the NAAQS at the Mott Street monitor for the same time period, satisfies the criteria for clean data according to the EPA's guidance. Certified and quality assured 2016 air quality monitoring data is indicative of a substantial improvement in SO_2 air quality in the nonattainment area; the design value for 2014-2016 is 23.0 ppb. Missouri's monitoring data, technical modeling analysis and supplemental information all support an EPA determination, consistent with its Clean Data Policy, that the nonattainment area has clean data and warrants a clean data determination.

VI. What Would Be the Effects of This Action, if Promulgated?

If this proposed determination is made final, the requirements for the state to submit an attainment demonstration, a reasonable further progress plan, contingency measures, and other planning SIPs revisions related to attainment of the 2010 1-hour primary SO_2 NAAQS shall be suspended until such time, if any, that the EPA subsequently

determines, after notice-and-comment rulemaking in the **Federal Register**, that the area has violated the 2010 1-hour primary SO₂ NAAQS. If this were to occur, the basis for the suspension of the specific SIP requirements would no longer exist, and the state would thereafter have to address the pertinent requirements. If finalized, this determination of attainment would not shield the area from other required actions, such as provisions to address pollution transport, which could require emission reductions at sources or other types of emission activities contributing significantly to nonattainment in other areas or states, or interfering with maintenance in those areas. The EPA has the authority to require emissions reductions as necessary and appropriate to deal with transported air pollution situations. See CAA sections 110(a)(2)(D), 110(a)(2)(A), and 126.

If, after considering any comments received on this proposal, the EPA finalizes a clean data determination for this area, the state would need to continue to monitor and/or model air quality to verify continued attainment. The air agency would be expected to continue to operate an appropriate air quality monitoring network in the affected area, in accordance with the EPA regulations, to verify the attainment status of the area

(see 40 CFR part 58) .

This proposed clean data determination is limited to a determination that the area attained the 2010 1-hour primary SO₂ NAAQS as evidenced by the state's monitoring data and modeling analysis; this proposed action, if finalized, would not constitute a redesignation to attainment under section 107(d)(3) of the CAA. The designation status of the nonattainment area will remain nonattainment for the 2010 1-hour primary SO₂ NAAQS until such time as the state submits an approvable redesignation request and maintenance plan, and the EPA takes final rulemaking action to determine that such submission meets the CAA requirements for redesignation to attainment.

V. Statutory and Executive Order Reviews

This action proposes to make a determination based on air quality monitoring data and modeling and would, if finalized, result in the suspension of certain Federal requirements and would not impose any additional requirements. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed action does not apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal

implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Sulfur dioxide, attainment determination.

Dated: June 5, 2017.

Edward H. Chu,
Acting Regional Administrator,
Region 7.